

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Kanichi TAMURA et al. : Attn: APPLICATION BRANCH  
Serial No. NEW : Docket No. 2001\_1532A  
Filed October 12, 2001 :

POLYURETHANE RESIN COMPOSITION AND  
OPTICAL LENS HAVING IMPACT RESISTANCE

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**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents,  
Washington, DC 20231

Sir:

**Prior to calculating the filing fee**, please amend the above-identified application as follows:

**IN THE CLAIMS**

*Please amend the claims as follows:*

5. (Amended) An impact-resistant optical lens formed by casting the polyurethane resin composition for casting claimed in claim 1.

*Please add the following new claims:*

8. An impact-resistant optical lens formed by casting the polyurethane resin composition for casting claimed in claim 2.

9. An impact-resistant optical lens as claimed in claim 8 wherein it is a transparent lens, sunglass lens or polarized lens.

10. An impact-resistant optical lens formed by casting the polyurethane resin composition for casting claimed in claim 3.

11. An impact-resistant optical lens as claimed in claim 10 wherein it is a transparent lens, sunglass lens or polarized lens.

12. An impact-resistant optical lens formed by casting the polyurethane resin composition for casting claimed in claim 4.

13. An impact-resistant optical lens as claimed in claim 12 wherein it is a transparent lens, sunglass lens or polarized lens.

**REMARKS**

The foregoing amendments remove the multiple dependency of the claim to reduce the PTO filing fee.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "Version with markings to show changes made".

Favorable action on the merits is solicited.

Respectfully submitted,

Kanichi TAMURA et al.

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What is claimed is:

1. A polyurethane resin composition comprising a polyisocyanate, a polyhydroxy compound and an aromatic polyamine,  
wherein said polyisocyanate is 4,4'-methylene-bis(cyclohexyl isocyanate) or isophorone diisocyanate.
2. A polyurethane resin composition as claimed in claim 1 wherein said polyhydroxy compound is a polyether diol or a polyester diol having an average molecular weight of 700-1200 or their mixture.
3. A polyurethane resin composition as claimed in claim 1 wherein said aromatic polyamine is 4,4'-methylene-bis(2-chloroaniline).
4. A polyurethane resin composition as claimed in claim 1 wherein said polyisocyanate and said polyhydroxy compound are reacted so that the reaction molar ratio of said polyisocyanate to said polyhydroxy compound (NCO/OH) is 2.5 to 4.0 and the NCO content of a polyurethane prepolymer obtained is 7.0 to 14.0%.
5. <sup>(Amended)</sup> An impact-resistant optical lens formed by casting the polyurethane resin composition for casting claimed in

~~any of claims 1-4.~~

6. An impact-resistant optical lens as claimed in claim 5 wherein it is a transparent lens, sunglass lens or polarized lens.

7. A method of casting a polyurethane resin comprising the steps of reacting a polyisocyanate with a polyhydroxy compound to obtain a polyurethane prepolymer so that the reaction molar ratio (NCO/OH) will be 2.5 to 4.0, curing the polyurethane prepolymer obtained having an NCO content of 7.0 to 14.0% with an aromatic polyamine so that the reaction molar ratio (NCO/NH<sub>2</sub>) will be 1.10 to 0.90, and casting and curing at 60-120 °C .